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EXAMINER

VANAMAN, FRANK BENNETT

ART UNIT

PAPER NUMBER

3618

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Status of Application

1. Applicant's amendment, filed Dec. 17, 2008 and supplemental filing of Jan 9, 2009 have been entered in the application. Claims 1-3, 7 and 8 are pending.
2. In that applicant has now presented claims in multiple dependent form, applicant should be advised that they are referred to herein by claim number, with the parent claim following the claim number in parentheses -- claim 7 as dependent from claim 1 would be written 7(1). In that the claims require different treatments based on their dependencies, such a notation will be used in the following rejections.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 2, 7(1), 7(2), 8(1), and 8(2) are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagaya (WO 02083446, cited by applicant). Nagaya teaches an in-wheel motor system having a hollow direct drive motor (3) which is provided in a wheel or hub (1 and/or 2), the motor stator (3S) being supported to a part around the wheel (5, 6, and/or 7) of the vehicle by elastic bodies and/or an attenuation mechanism (14a), the motor rotor (3R) and wheel or hub (1, 2) being interconnected by a coupling mechanism (18) comprising a wheel-side plate (18A) connected to the wheel or hub, a motor-side plate (18C) connected to a rotating side case portion (3B of 3R) of the motor, an intermediate plate (18B) interposed between and connected with the wheel and motor plates by slide members (18P, 18Q) which are provided with spherical roller bearing members (18M) which are limited to move in mutually perpendicular directions (see figure 18) by contact portions (e.g., lateral roller-embracing side portions of 18Y and/or internal projecting portions of 18X) which extend in the direction of the roller members (e.g., parallel to the arrows, figure 19) and engage either the external or internal lateral sides of the rollers, and/or (as more particularly directed to claim 4) where the perpendicular directions are set by guide members (18X, 18Y) at least one of which (18X) includes a protruding rail or rod section which is mutually engaged with a mating recess (middle portion of 18Y) in the other member, and with the spherical roller bearing elements (18M) the dimensional difference between the protruding rail central

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rail and surrounding portions of 18X and the dimensional difference between the central recess and the surrounding protrusions of 18Y constituting stepped surfaces, which are provided in both sides of the intermediate plate (see portion 18Y of element 18P on one side of 18B as illustrated in figure 17, portion 18X of element 18Q on the opposing side of 18B, as illustrated in figure 16), the roller members being mounted to the wheel side and motor side plates (18A, 18C) by the respective portions of 18P and 18Q connected thereto (e.g., portion 18X of 18P connected to plate 18A, portion 18Y of 18Q connected to plate 18C - note that these elements serve to mount the spherical bearings with respect to the plates in combination with the mating opposite elements which are additionally formed in 18B). The reference to Nagaya fails to explicitly teach that the respective portions 18X and 18Y associated with the intermediate plate, which already constitute stepped surfaces as discussed above, are 'formed in the plate'. Integral forming of elements intended to be connected together is well within the skill of the ordinary practitioner, and further, this technique delivers a substantial benefit in that it reduces the opportunities for elements joined together to un-join at an undesired and/or unexpected time due, for example, to failure of a connector or attachment weld. As such, it would have been obvious to one of ordinary skill in the art at the time of the invention to form the portions of 18X and 18Y associated with the intermediate plate integrally with the plate so as to ensure that these elements do not become separated at an undesired time during the operation of the vehicle.

5. Claims 3, 7(3) and 8(3) are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagaya in view of Asai (JP H07-279987, cited by applicant). The reference to Nagaya is discussed above and fails to teach the provision of an elastic annular dust boot containing the slide members. Initially, the examiner notes that it is very old and notoriously well known to provide dust boots to cover various working portions of a vehicle which would benefit from being isolated from dust, dirt or other contaminants. Further, Asai teaches that it is well known to provide an elastic annular dust boot (6) to cover multiple plate elements (1, 2, 3) which are used in rotary force transmission. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the connections taught by Nagaya with an annular elastic dust

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boot as taught by Asai for the well known purpose of protecting the slide mechanisms and thus ensuring a longer life for the force transmitting coupling (18) in general. Such an application sees notable benefit for at least protecting the mechanism, such that it need not be replaced as soon as an unprotected mechanism, ensuring longer life and reducing costs associated with replacement or repair of failed parts.

Response and Comments

6. Applicant's comments, filed with the amendment, have been carefully considered. Applicant has asserted that the reference to Nagaya fails to explicitly teach that the portions 18X and 18Y associated with the intermediate plate are 'formed in the plate'. As best understood, this assertion appears to be correct. Note, however, that integrally forming elements taught to be attached to one another is initially known to be well within the skill of the ordinary practitioner, and further finds a clear benefit in that it prevents unintended and/or unexpected disconnection between the elements.

The examiner notes that the amendment to the abstract is non-compliant with the explicit requirements of 37 CFR 1.121, in that it lacks a showing of the changes made to the text.

Conclusion

7. Applicant's amendment necessitated the new and/or modified ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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8. Any inquiry specifically concerning this communication or earlier communications from the examiner should be directed to F. Vanaman whose telephone number is 571-272-6701.

Any inquiries of a general nature or relating to the status of this application may be made through either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A response to this action should be mailed to:

Mail Stop _____
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450,

Or faxed to:

PTO Central Fax: 571-273-8300

F. VANAMAN
Primary Examiner
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